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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/018,696	12/13/2001	Brian A. Hunter	hunt01.007	5130
25247	7590	09/06/2007	EXAMINER	
GORDON E NELSON PATENT ATTORNEY, PC 57 CENTRAL ST PO BOX 782 ROWLEY, MA 01969			KHATTAR, RAJESH	
			ART UNIT	PAPER NUMBER
			3693	
			MAIL DATE	DELIVERY MODE
			09/06/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.



**Office Action Summary**

Application No.

10/018,696

Applicant(s)

HUNTER ET AL.

Examiner

Rajesh Khattar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 27 June 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-26 is/are pending in the application.
- 4a) Of the above claim(s) 1-18 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 19-26 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                                | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |



## **DETAILED ACTION**

### ***Acknowledgements***

This office action is in response to Applicant's communication filed on June 27, 2007. Claims 1-18 have been canceled. Claims 19 and 23 have been amended. New claims 25 and 26 have been added. As such, claims 19-26 are pending in the application.

### ***Response to Arguments***

Applicant's arguments with respect to pending claims have been considered but are moot in view of the new ground(s) of rejection.

With respect to 35 U.S.C. 101 rejection, Examiner has withdrawn the rejection as Applicant's amendment of claim 19 addressed the issue.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 19, 20 and 25-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over a non patent literature titled "Asset Allocation Models Using the Markowitz Approach" by Paul D. Kaplan in view of Lange, US Patent No. 6,321,212. Kaplan discloses a method of allocating investment funds among a set of at least two asset classes to optimize valuation of the asset classes over a period of time, data



concerning the asset classes being stored in storage accessible to a processor and the method comprising the steps performed in the processor of :

employing a linear optimization program to optimize the valuation (pages 1-2)  
and

in the linear optimization program, using a real option function to determine valuation for each asset class over the period of time for a particular allocation of the funds to the asset class, the valuations for the particular allocations of the funds to the asset class being stored in the storage for access by the processor.

Kaplan does not specifically disclose using a real option function to determine valuation for each asset class over the period of time for a particular allocation of the funds to the asset class. However, Lange discloses this feature (col. 57, lines 54-col. 58, lines 25). Therefore, it would have been obvious for a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Kaplan to include the disclosure of Lange. One would have been motivated to do so in order to manage their uncertainty and value as illustrated by Lange.

Regarding claims 20 and 26, Kaplan discloses the data concerning the asset class further indicates for each asset class a risk over the period of time (page 2, lines 1-13; page 4, lines 10-17) and the method further comprises the step of:

employing a constraint in the linear optimization program that specifies a reliability of a return for the portfolio for a particular allocation of funds to the asset classes in the set (page 1, lines 5-15; page 6, lines 20-22; page 7, lines 1-2; page 9,



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lines 1-9). Examiner notes that an efficient portfolio minimizes risk for a given level of expected return and maximizes expected return for a given level of risk.

Regarding claim 21, Examiner interprets there is a plurality of risks to be associated with each asset class (e.g. stocks, bonds, commodity, real estate, etc.). Examiner notes that it is old and well known that each asset class possesses number of risks. To add support, Examiner cites Kaplan disclosing this feature (page 2, lines 7-13).

Regarding claim 22, Kaplan discloses using the data to determine correlations between the asset classes with regard to the risks of the asset classes; and using the correlations and the particular allocation of funds to determine the reliability of the return for the portfolio (page 2, lines 1-13; page 4, lines 10-page 9, lines 1-9).

Claims 23 and 24 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kaplan in view of Lange and further in view of a non-patent literature titled Corporate Finance. Kaplan and Lange disclose their inventions as described above. However, both fail to specifically disclose using the correlations in determining a standard deviation of the risk for the particular allocation; and using the return for the particular allocation of funds and the standard deviation therefor in determining the reliability of the return for the portfolio; and determining a standard deviation for each of the asset classes with regard to the risk; and using the correlations and the standard deviations for the asset classes in determining covariances between the asset classes with regard to the risk; and using the covariances and the particular allocation of funds in determining the standard deviation of the particular allocation of funds. However,



Examiner notes that these features are well described in Corporate Finance Book (pages 248-267).

Therefore, it would have been obvious for a person having ordinary skills in the art at the time the invention was made to modify the disclosure of Kaplan and Lange to include the disclosure of Corporate Finance Book. One would have been motivated to do so in order to systematically determine the reliability of the return for the portfolio.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rajesh Khattar whose telephone number is 571-272-7981. The examiner can normally be reached on Flex schedule.

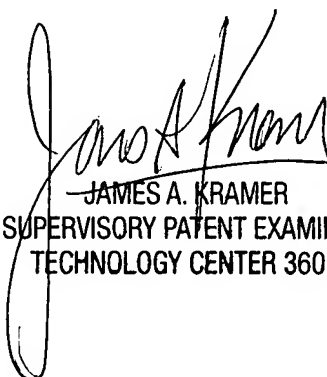


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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James Kramer can be reached on 571-272-6783. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

RK  
Aug. 30, 2007

 9-4-07  
—JAMES A. KRAMER  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600